CLAIMS

What is claimed is:

1. A star intelligent platform management bus topology, comprising:

a central baseboard management controller, coupled to a plurality of management controllers, to provide autonomous monitoring, event logging, and recovery control;

the plurality of management controllers, to receive a command message from the central baseboard management controllers, to gather information from a device, to package the information, and to transmit a response message with the information to the central baseboard management controller; and

a plurality of intelligent platform management buses that provide a communication connection between the central baseboard management controller and the plurality of management controllers, wherein the star intelligent platform management bus topology is adapted to:

provide fault isolation;

provide separate address domains; and

provide multiple owner security within a chassis.

2. The star intelligent platform management bus topology of claim 1, wherein the central baseboard management controller includes or is connected to a non-volatile storage unit, and the non-volatile storage unit has a system event log, a sensor data record depository, and a baseboard field replaceable unit information module.

3. The star intelligent platform management bus topology of claim 1, wherein the central baseboard management controller includes or is connected to sensors and control circuitry to monitor voltages, temperatures, power, fans, and reset control.

4. The star intelligent platform management bus topology of claim 1, wherein the central baseboard management controller is the gateway between system management software and platform management hardware.

5. The star intelligent platform management bus topology of claim 4, wherein the platform hardware management includes the plurality of intelligent platform management buses and an intelligent chassis management bus, and the intelligent chassis management bus is used for power and reset control, chassis status, events, and field replaceable unit inventory.

6. The star intelligent platform management bus topology of claim 1, wherein the plurality of management controllers resides on at least one chassis module.

7. The star intelligent platform management bus topology of claim 1, wherein the plurality of management controllers gather information from sensors and package the information in suitable transmission formats for sending via the plurality of intelligent platform management buses, which are adapted to carry streams of data.

8. The star intelligent platform management bus topology of claim 1, wherein each of the plurality of management controllers is coupled to one of the plurality of intelligent platform management buses.

9. The star intelligent platform management bus topology of claim 8, wherein at least one of the plurality of management controllers is replaced with at least one remote baseboard management controller so that the central baseboard management controller appears as a satellite management controller without baseboard management controller functionality to the at least one remote baseboard management controller.

10. The star intelligent platform management bus topology of claim 1, wherein if one of the plurality of management controllers fails in such a way that it corrupts the intelligent

platform management bus to which it is coupled, communication is lost with only the failed management controller so as to provide fault isolation.

11. The star intelligent platform management bus topology of claim 1, wherein the baseboard management controller and the plurality of management controllers share addresses.

12. The star intelligent platform management bus topology of claim 1, wherein each of a plurality of modules is isolated so that a controller of a module communicates directly with only a central baseboard management controller associated with the chassis to provide multiple owner security.

13. An intelligent management platform interface that allows communication between a central processing unit and a plurality of controllers, comprising:

an intelligent platform management interface that provides monitoring and control functions;

a plurality of intelligent platform management buses for communication to and between the plurality of controllers and for extending management control, monitoring, and event delivery within a chassis;

an intelligent chassis management bus for chassis and emergency management functions including power and reset control, chassis status, events, and inventory;

a central baseboard management controller, connected to a plurality of management controllers via the plurality of intelligent platform management buses;

wherein the plurality of intelligent platform management buses are arranged in a star topology to provide fault isolation, separate address domains, and multiple owner security.

14. The intelligent platform management interface of claim 13, wherein the plurality of intelligent platform management buses are inter-integrated circuit bus based.

15. The intelligent platform management interface of claim 13, wherein the central processing unit requests and receives information from an intelligent platform management interface event log through the central baseboard management controller.

16. The intelligent platform management interface of claim 15, wherein the central processing unit inquires about changes in the event log since a previous inquiry.

17. The intelligent platform management interface of claim 13, wherein the central baseboard management controller is connected to a system bus on a computer chassis motherboard through a system interface.

18. The intelligent platform management interface of claim 17, wherein the motherboard is connected to a network controller and a network connector.

19. The intelligent platform management interface of claim 13, wherein the intelligent chassis management bus is RS-485 based and is coupled to RS-485 transceivers.

20. The intelligent platform management interface of claim 13, wherein if at least one of the plurality of management controllers fails, the star topology allows continued communication between the central baseboard management controller and any non-failing management controller from the plurality of management controllers.

21. The intelligent platform management interface of claim 13, wherein the star topology provides separate address domains to the central baseboard management controller and the plurality of management controllers thus allowing address sharing.

22. The intelligent platform management interface of claim 13, wherein the star topology isolates each of a plurality of modules such that a controller of a module only communicates directly with the central baseboard management controller for the chassis.

23. A method of configuring a star intelligent platform management bus topology, comprising:

providing a central baseboard management controller;

providing a first management controller;

connecting the central baseboard management controller to the first management controller via a first intelligent platform management bus;

providing a second management controller; and

connecting the central baseboard management controller to the second management controller via a second intelligent platform management bus.

24. The method of claim 23, wherein the first management controller and the second management controller reside on at least one chassis module and accept command messages from the central baseboard management controller, gather information from sensors, package the information into a suitable transmission format, and transmit a response message with the information over the first and second intelligent platform management buses to the central baseboard management controller.

25. The method of claim 24, wherein the first management controller and the second management controller send event messages to the central baseboard management controller.

26. The method of claim 23, wherein the central baseboard management controller manages an intelligent platform management interface event log, monitors voltages, temperatures, power, reset control, and fans, and manages a non-volatile storage for data records.

27. The method of claim 26, wherein a central processing unit requests and receives information from the intelligent platform management interface event log through the central

baseboard management controller and inquires about changes in the event log since a previous inquiry.

28. The method of claim 23, wherein the star intelligent platform management bus topology provides fault isolation by maintaining continued communication between the central baseboard management controller and one of the first management controller and the second management controller if one of the first management controller and the second management controller fails.

29. The method of claim 23, wherein the star intelligent platform management bus topology provides separate address domains to the central baseboard management controller, the first management controller, and the second management controller to allow address sharing.

30. The method of claim 23, wherein the star intelligent platform management bus topology isolates each of a plurality of chassis modules such that a controller of a module only communicates directly with the central baseboard management controller for the chassis module to provide multiple owner security.